

Claims

1. A method for the production of a powder consisting of a Cu(In,Ga)Se_2
5 compound,
characterized in that
it comprises the following steps:
- alloying Cu and In and/or Cu and Ga to form a CuIn and/or CuGa alloy
10 with a sub-stoichiometric fraction of Cu,
 - producing a powder consisting of the CuIn and/or CuGa alloy,
 - adding Se as well as either KI or NaI to the powder,
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 - heating up the mixture until a melt is formed in which the
 Cu(In,Ga)Se_2 recrystallizes and, at the same time, the powder particles to be produced
grow,
 - 20 - cooling off the melt in order to interrupt the growth of the particles.
2. The method according to Claim 1,
characterized in that,
25 after cooling off, the KI or NaI is removed by means of dissolution with water.

3. The method according to one or both of Claims 1 or 2,
characterized in that
- 5 the ratio of the molar amount of Cu employed to the sum of the molar amount
of In employed plus the molar amount of Ga employed lies between 0.8 and 1.
4. The method according to one or more of the preceding claims,
10 characterized in that
- the ratio of the molar amount of Ga employed to the molar amount of In
employed lies between 0 and 0.43.
- 15 5. A mono-particle membrane solar cell, comprising a back contact, a
mono-particle membrane, at least one semiconductor layer and a front contact,
characterized in that
- the mono-particle membrane contains a powder produced by a method
according to one or more of Claims 1 to 4.